



## CERTIFICATE OF ANALYSIS

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### 1. Identification

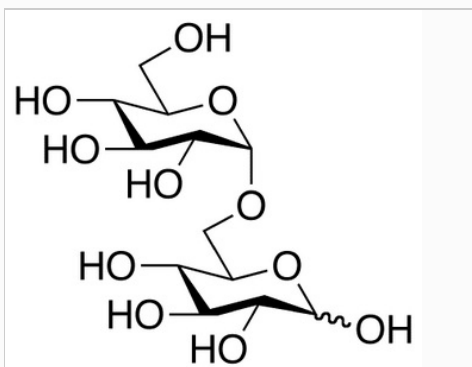
Catalogue Number: I821250

CAS Number: 499-40-1

Product:

Synonym:

Structure:



Molecular Formula:

C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>

Molecular weight:

342.3

Source of Product:

N/A

Solubility:

NA

Lot Number: 1-PVA-181-1

Purity: 97%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: 4°C

### 2. Warning

Warning 1:

Warning 2:

Warning 3:

### 3. Analytical Information

| Tests:             | Specifications:          | Results:                          |
|--------------------|--------------------------|-----------------------------------|
| Elemental Analysis | Conforms                 | %C: 40.07, %H: 6.61               |
| NMR                | Conforms to Structure    | Conforms                          |
| Appearance         | White to Off-White Solid | White to Off-White Solid          |
| MS                 | Conforms to Structure    | Conforms                          |
| HPLC Purity        | Report Result            | 99.92% (ELSD)                     |
| Specific Rotation  | Report Result            | +107.5° (c = 0.2, Water; 4 Hours) |
| Water Content      | Report Result            | ~4.8% based on Elemental Analysis |

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

### 4. Signatures

| Reviewed By | Reviewed By   | C of A Approved By | Test Date  | Retest Date |
|-------------|---------------|--------------------|------------|-------------|
| Neha Khanna | Toni Rantanen | Chanell Chu        | 10/27/2021 | 10/25/2025  |